

IN THE ABSTRACT

For the purpose of enabling parallel imaging even when a navigator echo is used to phase-correct an imaging echo, the present invention involves: exciting spins within a subject to acquire an imaging echo generated by the excited spins along with a navigator echo, with a reduced field-of-view via a plurality of receiver systems (802); conducting phase correction on the imaging echo based on the navigator echo (804); producing an intermediate image based on the phase-corrected imaging echo from each of the plurality of receiver systems (806); generating a sensitivity matrix for the plurality of receiver systems (808); correcting the phase of matrix data in the sensitivity matrix (810); and producing an image with a full field-of-view based on the intermediate image and the phase-corrected sensitivity matrix (812).